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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Application No. Applicant(s) 10/662 407 EKBERG ET AL Office Action Summary Examiner Art Unit HUY C. HO 2617 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --Period for Reply A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS. WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). Status 1) Responsive to communication(s) filed on 20 February 2008. 2a) This action is FINAL. 2b) This action is non-final. 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims 4) Claim(s) 1-53 is/are pending in the application. 4a) Of the above claim(s) _____ is/are withdrawn from consideration. 5) Claim(s) _____ is/are allowed. 6) Claim(s) 1-53 is/are rejected. 7) Claim(s) _____ is/are objected to. 8) Claim(s) _____ are subject to restriction and/or election requirement. Application Papers 9) The specification is objected to by the Examiner. 10) ☐ The drawing(s) filed on 16 September 2003 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s)/Mail Date. Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTC/G5/08)
Paper No(s)/Mail Date ______

Notice of Informal Patent Application

6) Other:

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DETAILED ACTION

Response to Arguments

Applicant's arguments filed 02/20/2008 have been fully considered but they are not persuasive.

The argued features, i.e., <u>An apparatus</u> comprises: a memory device, a processor disposed in communication with the memory device, where the processor configured to conduct an inquiry to discover a nearby device, when <u>an inquiry result</u> includes an indication that the nearby device may include a middleware layer, <u>the middleware layer comprises a middleware software for providing application and service discovery</u>, creating a wireless short-range connection to said nearby device, confirming whether said one nearby device includes the middleware layer <u>by requesting corresponding information from said nearby device via the wireless short-range connection;</u> and when said at least one nearby device includes the middleware layer, executing the middleware layer to perform application and service discovery, read upon Kammer and Beck as follows.

Kammer teaches method and system for short range interconnection, where Kammer discusses devices discovery, a device makes an inquiry to discover its neighbor devices (see page 20, figure 1.6). Kammer also teaches service discovery, where a device uses service discovery protocol SDP to discover services offered by other neighbor devices (see pages 24, 41), thus Kammer discloses a memory device, a processor disposed in communication with the memory device, where the processor configured to conduct an inquiry to discover a nearby device, when an inquiry result includes an indication that the nearby device may include a middleware layer, creating a wireless short-range connection to said nearby device, confirming whether said one nearby device includes the middleware layer by requesting corresponding information from said nearby device via the wireless short-range connection; and when said at least one nearby device includes the middleware layer to perform application and service discovery.

Kammer does not show the middleware layer for providing application and service discovery, but Kammer teaches the service discovery protocol SDP allows devices to find out about other devices' capabilities and services offered by them (see pages 24, 41). In same field of endeavor, Beck teaches a

method and system for device and services discovery in a network, where Beck discusses middleware is provided to enable a device to discover, advertise and use services (see the abstract, col 2 lines 45-55).

Since Kammer and Beck both teach about method and system for device and service discovery, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify teachings of Kammer, and have the middleware layer for providing application and service discovery, taught by Beck to improve the method and system discussed by Kammer (see page 64, the summary).

As a result, the argued features were written such that they read upon the cited references.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP \$ 608.01(o). Correction of the following is required: "medium" in "computer readable medium" of claim 37 and dependent claims thereof is not clearly defined in the Specification of the Application.

Claim Rejections - 35 USC § 103

- The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the

contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

- The factual inquiries set forth in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
 - 1. Determining the scope and contents of the prior art.
 - 2. Ascertaining the differences between the prior art and the claims at issue.
 - 3. Resolving the level of ordinary skill in the pertinent art.
 - Considering objective evidence present in the application indicating obviousness or nonohylousness
- Claims 1-5, 11-14, 16-23, 29-32 and 34-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kammer et al. (ISBN: 1-928994-42-3, "Bluetooth Application Developer's Guide") and further in view of Beck et al. (6,604,140).

Consider claim 1, (Currently Amended) Kammer discloses an apparatus a-system-for performing device-detection and service discovery in a mobile ad hoc-communications network (see page 20 lines 7-end of page, page 24 lines 20-end of page), comprising:

a memory device (page 20, figure 1.6); and

a processor disposed in communication with the memory device (page 20, figure 1.6), the processor configured to:

conducting an inquiry of the ad-hoc communications network to discover at least one nearby device, the inquiry including an indication that said at least-one nearby device may include a layer, said-layer-being software for providing application and service discovery (see page 20 lines 7-end of page, page 24 lines 20-end of page, page 41 whole page, page 42 whole page);

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when the <u>an</u> inquiry <u>result</u> includes the indication that said at least one nearby device may include the layer, <u>the middleware layer comprising a middleware software for providing application</u> and service discovery:

creating a connection to said at least one nearby device (page 21, whole page);

confirming whether said at least one nearby device includes the layer <u>by requesting</u>

corresponding information from said at least one nearby device via the wireless short-range

connection: (page 24 lines 20-end of page); and

when the peer device includes the layer:

execute the layer to perform application and service discovery (page 24 lines 20-end of page);

Kammer does not show the middleware layer for providing application and service discovery, but Kammer teaches the service discovery protocol SDP allows devices to find out about other devices' capabilities and services offered by them (see pages 24, 41). In same field of endeavor, Beck teaches a method and system for device and services discovery in a network, where Beck discusses middleware is provided to enable a device to discover, advertise and use services (see the abstract, col 2 lines 45-55).

Since Kammer and Beck both teach about method and system for device and service discovery, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify teachings of Kammer, and have the middleware layer for providing application and service discovery, taught by Beck to improve the method and system discussed by Kammer (see page 64, the summary).

Consider claim 19, (Currently Amended) Kammer discloses a method for performing device detection and service discovery in a mobile ad hoc communications network (see page 20 lines 7-end of page, page 24 lines 20-end of page), comprising:

conducting an inquiry of the ad-hoc communications network to discover at least one nearby device, the inquiry including an indication that said at least one nearby device may include a layer, said layer being middleware software for providing application and service discovery in an ad hoc

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network_(see page 20 lines 7-end of page, page 24 lines 20-end of page, page 41 whole page, page 42 whole page);

when the <u>an</u> inquiry <u>result</u> includes the indication that said at least one nearby device may include the layer, <u>the middleware layer comprising a middleware software for providing application</u> and service discovery:

creating a <u>wireless short-range</u> connection to said at least one nearby device (pages 20, 21), confirming whether said at least one nearby device includes the layer <u>by requesting</u> corresponding information from said at least one nearby device via the wireless short-range connection:(page 24 lines 20-end of page); and

when the peer device includes the laver:

execute the layer to perform application and service discovery (page 24 lines 20-end of page);

Kammer does not show the middleware layer for providing application and service discovery, but Kammer teaches the service discovery protocol SDP allows devices to find out about other devices' capabilities and services offered by them (see pages 24, 41). In same field of endeavor, Beck teaches a method and system for device and services discovery in a network, where Beck discusses middleware is provided to enable a device to discover, advertise and use services (see the abstract, col 2 lines 45-55).

Since Kammer and Beck both teach about method and system for device and service discovery, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify teachings of Kammer, and have the middleware layer for providing application and service discovery, taught by Beck to improve the method and system discussed by Kammer (see page 64, the summary).

Consider claim 37, (Currently Amended) Kammer discloses a computer program product, executable in a computer system for performing device detection and service discovery in a mobile ad hoc-communications network comprising:

a computer readable medium storing:

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program code for conducting an inquiry of the mobile ad hoc communications network to discover at least one nearby device, the inquiry including an indication that said at least one nearby device may include a layer, said layer being soft-ware for providing application and service discovery (see page 20 lines 7-end of page, page 22 lines 18-28, page 24 lines 20-end of page, page 41 whole page, page 42 whole page);

program code for creating a connection to said at least one nearby device when the inquiry includes the indication that said at least one nearby device may include <u>a</u> layer the middleware layer <u>comprising a middleware software for providing application and service discovery:</u> (page 21, whole page);

program code for confirming whether said at least one nearby device includes the layer when the inquiry includes the indication that said at least one nearby device may include the layer requesting corresponding information from said at least one nearby device via the wireless short-range connection (page 24 lines 20-end of page); and

program code for executing the layer to perform application and service discovery when said at least one nearby device includes the layer, (page 24 lines 20-end of page);

Kammer does not show the middleware layer for providing application and service discovery, but Kammer teaches the service discovery protocol SDP allows devices to find out about other devices' capabilities and services offered by them (see pages 24, 41). In same field of endeavor, Beck teaches a method and system for device and services discovery in a network, where Beck discusses middleware is provided to enable a device to discover, advertise and use services (see the abstract, col 2 lines 45-55).

Since Kammer and Beck both teach about method and system for device and service discovery, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify teachings of Kammer, and have the middleware layer for providing application and service discovery, taught by Beck to improve the method and system discussed by Kammer (see page 64, the summary).

Consider claim 45, (Currently Amended) Kammer discloses a apparatus, system for performing device-detection and service-discovery in a mobile ad hoc communications network (see page 20 lines

7-end of page, page 24 lines 20-end of page), comprising:

means for conducting an inquiry of the mobile ad hoc communications network to discover at least one nearby device, the inquiry including an indication that said at least one nearby device may include a layer, said layer being software for providing application and service discovery (see page 20 lines 7-end of page, page 22 lines 18-28, page 24 lines 20-end of page, page 41 whole page, page 42 whole page);

means for creating a <u>wireless short-range</u> connection to said at least one nearby device when the inquiry includes the indication that said at least one nearby device may include the layer, <u>the middleware layer comprising a middleware software for providing application and service discovery</u> (page 21, whole page);

means for confirming that said at least one nearby device includes the layer when the inquiry includes the indication that said at least one nearby device may include the layer (page 24 lines 20-end of page); and

means for executing the layer to perform application and service discovery when said at least one nearby device includes the layer by requesting corresponding information from said at least one nearby device via the wireless short-range connection (page 24 lines 20-end of page);

Kammer does not show the middleware layer for providing application and service discovery, but Kammer teaches the service discovery protocol SDP allows devices to find out about other devices' capabilities and services offered by them (see pages 24, 41). In same field of endeavor, Beck teaches a method and system for device and services discovery in a network, where Beck discusses middleware is provided to enable a device to discover, advertise and use services (see the abstract, col 2 lines 45-55).

Since Kammer and Beck both teach about method and system for device and service discovery, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify teachings of Kammer, and have the middleware layer for providing application and service discovery, taught by Beck to improve the method and system discussed by Kammer (see page 64, the summary).

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Consider claim 53, (Currently Amended) Kammer discloses a wireless device in a mobile ad hoc communications network (page 20, figure 1.6), comprising:

wireless short range transceiver (page 10 whole page);

a memory device (page 20, figure 1.6);; and

a processor disposed in communication with the memory device (page 20, figure 1.6), the processor configured to:

transmit with the transceiver an inquiry of the mobile ad-hoc-communications network to discover-at-least-one-nearby-device (see page 20 lines 7-end of page, page 24 lines 20-end of page, page 41 whole page, page 42 whole page);

receive with the transceiver a response to the inquiry <u>request message</u>, <u>transmit with the transceiver an inquiry response message</u> including an indication that said at least one nearby device the <u>wireless device</u> may include a layer, said middleware layer being <u>comprising a layer</u> for providing application and service discovery (see page 20 lines 7-end of page, page 22 lines 18-28, page 24 lines 20-end of page, page 41 whole page, page 42 whole page);

when the inquiry includes the indication that said at least one nearby device may include the layer:

create with the transceiver a <u>wireless short-range connection</u> to said at least one nearby device in response to receiving a paging request message from said at least one nearby device: (page 21, whole page);

confirm whether said at least one nearby device includes the layer by requesting corresponding information from said at least one nearby device via the wireless short-range connection (page 24 lines 20-end of page);

when said at least one nearby device includes the layer:

execute the layer to perform application and service discovery (page 24 lines 20-end of page);

Kammer does not show the middleware layer for providing application and service discovery,

but Kammer teaches the service discovery protocol SDP allows devices to find out about other devices' capabilities and services offered by them (see pages 24, 41). In same field of endeavor, Beck teaches a

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method and system for device and services discovery in a network, where Beck discusses middleware is provided to enable a device to discover, advertise and use services (see the abstract, col 2 lines 45-55).

Since Kammer and Beck both teach about method and system for device and service discovery, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify teachings of Kammer, and have the middleware layer for providing application and service discovery, taught by Beck to improve the method and system discussed by Kammer (see page 64, the summary).

Consider claims 2, 20, 38 (Original), 46, (Currently Amended) an apparatus The system of claims 1, 19, 37, 45 Kammer as modified by Beck, discloses wherein the middleware layer includes a service discovery protocol and at least one computer program, each computer program comprising at least one sequence of operational instructions (col 8 lines 57-67, col 9 lines 1-10).

Consider claims 3, 21, 39 (Original), 47, (Currently Amended) an <u>an apparatus</u>. The <u>system</u> of claims 1, 19, 37, 45 Kammer as modified by Beck, discloses wherein when said at least one nearby device includes the middleware layer, the processor is further configured to:

execute the middleware layer to launch applications and services (col 2 lines 50-55).

Consider claims 5, 23 (Currently Amended) The system of claims 4, 22, Kammer as modified by Beck, further discloses wherein the inquiry request message is a Bluetooth inquiry command, and the inquiry response message is a Bluetooth inquiry result command (page 20, figure 1.6).

Consider claims 4, 22, 40, 48, (Currently Amended) an apparatus. The system of claims 1, 19, 37, 45 Kammer as modified by Beck, further discloses wherein to conduct the inquiry, the processor is further configured to:

send an inquiry request message to a coverage area within the mobile ad hoc communications network (see page 20 lines 7-end of page, page 24 lines 20-end of page, page 41 whole page, page 42 whole page); and

receive an inquiry response message from said at least one nearby device, the inquiry response message including the indication (see page 20 lines 7-end of page, page 24 lines 20-end of page, page 41 whole page, page 42 whole page):

Consider claims 11, 29, 41, 49 (Currently Amended) an apparatus. The system of claims 1, 19, 37, 45 Kammer as modified by Beck, further discloses wherein to create the connection, the processor is further configured to:

send a paging request message to a coverage area within the mobile ad-hoc-communications network directed to said at least one nearby device (page 21 lines 25-30); and

receive a paging accept message from said at least one nearby device (page 21 lines 25-30);

Consider claims 12, 30 (Original), 42, 50 (Currently Amended) an apparatus. The system of claims 1, 19, 37, 45, Kammer as modified by Beck, further discloses wherein to confirm that said at least one nearby device includes the middleware layer, the processor is further configured to:

send a recognition request message to said at least one nearby device (page 24 lines 18-35); and

receive a recognition response message from said at least one nearby device (page 24 lines 18-35).

Consider claims 13 (Currently Amended), 31 (Original), an apparatus The system of claims 12, 30 Kammer as modified by Beck, further discloses wherein receipt of the recognition response message confirms that said at least one nearby device includes the middleware layer (page 24 lines 18-35, page 41 whole page).

Consider claims 14 (Currently Amended), 32 (Original) an apparatus. The system of claims 12, 30 Kammer as modified by Beck, further discloses wherein the recognition response message includes a confirmation that said at least one nearby device includes the middleware layer (page 24 lines 18-35, page 41 whole page).

Consider claims 16 (Currently Amended), 34 (Original) an apparatus The system of claims 12, 30, 37, Kammer as modified by Beck, further discloses wherein the recognition request message is a

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Bluetooth Service Discovery Protocol request and the recognition response message is a Bluetooth Service Discovery Protocol response (page 24 lines 18-35, page 41 whole page).

Consider claims 17, 35, 51 (Currently Amended), 43 (Original), an apparatus The system of claims 1, 19, 37, 45, Kammer as modified by Beck, discloses wherein to execute the middleware layer to perform application and service discovery, the processor is further configured to:

receive a notification message from said at least one nearby device, the notification message including a local application directory stored in said at least one nearby device (col 2 lines 4-5, 57-63);

store an update to a combined application directory, the update based on a comparison of the local application directory and the combined application directory (col 7 lines 12-25, col 8 lines 25-27);

send an update message to said at least one nearby device, the update message including an update portion of the combined application directory for updating the local application directory stored in said at least one nearby device (col 6 lines 45-67, col 7 lines 12-25, col 8 lines 25-27).

Consider claims 18, 52 (Currently Amended) 36, 44 (Original), an apparatus. The system of claims 17, 35, 43, 51 Kammer as modified by Beck, discloses wherein the processor is further configured to:

launch a local application based on a reference in the combined application directory (col 6 lines 45-67); and

connect the local application to a counterpart application executing on said at least one nearby device (col 6 lines 45-67);

 Claims 6-10, 15, 24-28 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kammer et al. (ISBN: 1-928994-42-3, "Bluetooth Application Developer's Guide") in view of Beck et al. (6,604,140) and further in view of Howe (2005/0058149).

Consider claims 6, 24 (Currently Amended) an apparatus The system of claims 5, 23 Kammer as modified by Beck, further discloses wherein setting the Bluetooth inquiry result command to at least

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one predetermined value is the indication (see page 20 lines 7-end of page, page 24 lines 20-end of page, page 41 whole page, page 42 whole page);

Kammer as modified by Beck does not show bit indication. Howe discloses bit indication (see sections [370]-[374]).

Since both Kammer, Beck and Howe teach ad hoc communication network, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify teachings Kammer, and Beck, and have bit indication, taught by Howe to improve the method and system for packet data transmission network, as discussed by Howe (see sections [5]-[35]).

Consider claim 7, 25 (Currently Amended) an apparatus. The system of claim 6, 24 Kammer as modified by Beck, and further in view of Howe discloses wherein said at least one bit includes at least one of the ad hoc networking aware bit, the location information bit, or the telephony capable bit (see sections [370]-[374]).

Consider claims 8, 26 (Currently Amended) an apparatus. The system of claims 5, 23 Kammer as modified by Beck, further discloses wherein setting in the Bluetooth inquiry result command to at least one predetermined value is the indication (see page 20 lines 7-end of page, page 24 lines 20-end of page, page 41 whole page, page 42 whole page).

Kammer as modified by Beck does not show bit indication. Howe discloses bit indication (see sections [370]-[374]).

Since both Kammer, Beck and Howe teach ad hoc communication network, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify teachings Kammer, and Beck, and have bit indication, taught by Howe to improve the method and system for packet data transmission network, as discussed by Howe (see sections [5]-[35]).

Consider claims 9, 27 (Currently Amended) an apparatus. The system of claims 8, 26 Kammer as modified by Beck, and further in view of Howe discloses wherein said at least two bits includes at least two of the ad hoc networking aware bit, the location information bit, or the telephony capable bit (see sections [51-[351]).

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Consider claims 10, 28 (Currently Amended) an <u>an apparatus. The system</u> of claims 8, 26 Kammer as modified by Beck, and further in view of Howe discloses wherein said at least two bits includes the ad hoc networking aware bit, and at least one of the location information bit, or the telephony capable bit (see sections [5]-[35]).

Consider claims 15, 33 (Currently Amended) an apparatus The-system of claims 14, 32, Kammer as modified by Beck, further discloses wherein setting in the recognition response message to at least one predetermined value is the confirmation (see page 20 lines 7-end of page, page 24 lines 20-end of page, page 41 whole page, page 42 whole page).

Kammer as modified by Beck does not show bit indication. Howe discloses bit indication (see sections [370]-[374]).

Since both Kammer, Beck and Howe teach ad hoc communication network, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify teachings Kammer, and Beck, and have bit indication, taught by Howe to improve the method and system for packet data transmission network, as discussed by Howe (see sections [5]-[35]).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUY C. HO whose telephone number is (571)270-1108. The examiner can normally be reached on Monday - Friday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Duc Nguyen/ Supervisory Patent Examiner, Art Unit 2617